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DIGITAL SOLAR SYSTEM GEOLOGY

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All available synoptic maps of the solid-surface bodies of the Solar System have been digitized for presentation in the planned Atlas of the Solar System by Greeley and Batson. Since the last report (Batson et al., 1990), preliminary Uranian satellite maps have been replaced with improved versions, Galilean satellite geology has been simplified and digitized, structure has been added to many maps, and the maps have been converted to a standard format, with corresponding standard colors for the mapped units. Following these changes, the maps were re-reviewed by their authors and are now undergoing final editing before preparation for publication.

In some cases (for Mercury, Venus, and Mars), more detailed maps were digitized and then simplified for the Atlas. Other detailed maps are planned to be digitized in the coming year for the Moon and the Galilean satellites. For most of the remaining bodies such as the Uranian satellites, the current digitized versions contain virtually all the detail that can be mapped given the available data; those versions will be unchanged for the Atlas.

These digital geologic maps are archived at the digital scale of 1/16°/pixel, in sinusoidal format. The availability of geology of the Solar System in a digital database will facilitate comparisons and integration with other data: digitized lunar geologic maps (Wilhelms, 1987) have already been used in a comparison with Galileo SSI observations of the Moon (McEwen et al., 1991).

REFERENCES

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